

Transcript for program “**CDC Responds: Treatment Options for Postal and Other Workers Exposed to Anthrax,**” webcast Friday, December 21, 2001, 4:00 pm (EST) from the Centers for Disease Control and Prevention, Atlanta.

Lisa Rayam, moderator:

I'm Lisa Rayam. Welcome to “CDC Responds: Treatment Options for Postal and Other Workers Exposed to Anthrax.” This broadcast will provide new information for treatment options for prevention of inhalation anthrax for persons who were exposed to spores and are completing 60-day courses of prophylactic antibiotics. CDC is committed to providing programs like this that deal with important public health issues.

The objectives of the program will

- help you to understand the reason for the treatment options and
- understand the information needed to make a decision about treatment options.

Before we continue, here is an important contact number you will need if you have trouble receiving this program during our broadcast. For technical assistance, please call 800-728-8232. If you feel that we have not answered questions you may have had, please fax them to 800-553-6323 after today's broadcast.

And now, I would like to introduce you to Dr. Julie Gerberding, Acting Deputy Director for the National Center for Infectious Diseases in Atlanta who would like to begin our program today with a few wording regarding options for individuals exposed to airborne spores and who may be at risk for inhalational anthrax.

Dr. Julie L. Gerberding:

Thank you very much. I'm really happy to have a chance to provide context today for all of the information that's been coming out about new options for preventing inhalational anthrax. I think this has been a very confusing time and a very difficult time for all of us. CDC has been working with various experts to update the appropriate ways to prevent anthrax in people who have been exposed on the job. We do have new options, which I will discuss with you in more detail in a few minutes. I first just wanted to say thank you for giving me this opportunity and to encourage you to continue to send your questions or your comments so that we can be as responsive as possible to all of your needs.

As I said, this has been a very challenging time for everyone. Over the last several months, more than 10,000 people have been recommended or advised to consider taking antibiotics after anthrax exposures on the job. I think the really good news is that we have had no cases of inhalation anthrax among any of the people who have started antibiotics. But our concern at this point is that especially for the people who had the most high degree exposures, that may not be everything we can do to offer protection, and we want to make sure that we at least give you the best information and our best advice about what additional steps, if any, make sense. Before we go into all of that, I think it's important that we start off on the same page, so we have a very short video here about

anthrax and anthrax disease to make sure that everyone understands what it is we're trying to prevent. Let's go to the video.

Clip from CDC videotape entitled "Protecting your health - For Persons Who Process, Sort, and Deliver the Mail"

Hi.

Hi.

I understand you have a question for us about anthrax?

Yes. You know it would be really helpful to me if you could explain exactly what anthrax is. You know, like where does it come from, and has anyone ever actually gotten it before now?

That's a good question and a great place to start. Thanks.

Anthrax is the disease caused by the bacteria *Bacillus anthracis*, although it has rarely caused disease in humans in the United States, this bacterium is found in the soil in many parts of the United States and the world where it exists as spores that are seed-like. It's the spore that causes anthrax. Throughout history, anthrax has been most commonly found in farm animals such as cattle; sheep and goats that graze on the spores that are in the soil. It's important to note that if a person comes in contact with anthrax spores, we say this person has been exposed. A person can be exposed without actually getting the disease. It is also important to know that anthrax is not contagious and cannot be spread from one person to another. You get the disease when you come in contact the anthrax spores.

Let's field another question.

Hi. I have a question.

Yes. Go ahead.

I know that some people have gotten an infection on the skin, and a few others have gotten some type of infection from breathing it in. Is there more than one type of anthrax and how do we know if we have been infected?

Yes. There are actually three ways a person could potentially become infected when exposed to the anthrax spores.

- The most common form of the disease is the cutaneous or skin type. The spores can enter the body through breaks or cuts in the skin. The early sign of the skin type of anthrax might be a painless boil-like sore. It becomes an open sore with a sunken black scab. Most people will not have other symptoms. Some persons will have a fever, feel tired and have swelling of the lymph nodes. The skin form is treatable with antibiotics but will become life threatening if left untreated.

- The most serious form of the disease is inhalational anthrax, which may occur after anthrax spores are inhaled into the lungs. Symptoms of inhalational anthrax may include muscle aches, tiredness, shortness of breath, fever, chills, and sweating. The symptoms can be similar to the flu; they usually do not include a runny nose. Inhalational anthrax can be treated with antibiotics; however, the possibility of successful treatment depends on early treatment.
- The third type of anthrax is gastrointestinal anthrax. This form of anthrax usually comes from eating food contaminated with anthrax spores. Symptoms may include fever, severe stomach cramps, and vomiting of blood. There have been no cases of this type of the disease to date associated with these terrorist attacks.

People with any type of anthrax, usually --- though not always --- develop symptoms within seven days. As always, please seek medical attention if you are concerned about your health. While medical professionals have no tests that can predict if you will get the disease, they can determine if you are sick with the disease.

End of video clip.

Dr. Gerberding:

Thank you. What I'd like to do now is to give you the facts --- the straight facts about what we know and what we don't know about the risk that you might encounter and what the medical decisions may mean to you and your own personal health.

If I can start with what I think is the most important fact of all, and that is to date nobody who started antibiotics for the 60-day course has acquired inhalation anthrax. I think it's very important as we look forward to additional decisions that we keep this in mind. The question that we have to address are these:

- Do any spores persist after we have taken all of the antibiotics?
- If so, will these spores create inhalational anthrax?
- Does adding vaccination or even more days of antibiotics decrease the chance that inhalation anthrax will occur --- among those people who were actually able to take all 60 days of the antibiotics and also those people who just couldn't take all 60 days of antibiotics?

I think these questions are critically important as we move forward and consider the options. We're aware there is just not enough scientific information to give you firm answers. The worry we have comes from very limited experience in animals and other kinds of research studies, and some very, very small case data from experiences of anthrax exposures in Russia and elsewhere. So, we don't know how many days of antibiotics are safe, and we don't know what risk, if any, persists for people who have completed the 60 days of antibiotics.

Now, there are some options that have been proposed. I'd like to make sure that we're very clear about what those options are at this point in time:

- For the 10,000 people in work sites such as at AMI, in the postal facilities, in the congressional offices, and many other locations, including some workers in D.C. who

were out in the field, the initial advice was to take antibiotics for 60 days if they were at risk for aerosol exposure.

- We now have a new option. That is, to add some extra days of antibiotics on to the original 60 days. 40 days has been proposed as an appropriate interval based on some research study in animals. So, the first option is to take antibiotics for 100 days total; so 60 days plus 40 days.
- The second option is to take a vaccine that requires receiving three doses over a four-week period of time. While the vaccine is taking an effect, and creating protection, antibiotics also need to be taken to be sure that a person is protected while they're waiting for the vaccine response. So, the second option involves two things: the vaccine for three doses and 40 additional days of antibiotics or 100 total days of antibiotics.

Now, when we are thinking about how to make this decision for individual people, what a doctor will do, and what I would do, is to think about the balance between the potential benefits of taking any of these options, and the risks that might be associated with those effects. We can think about that for groups of people, for example, postal workers in a particular facility or AMI workers in the building in Florida. But what's really important to most of us is how does that balance come out for me?

If you are the one trying to assess your risk and the benefits of the situation, what kinds of information do you need to know, and what kinds of advice do you need to make an intelligent decision? Here are things that might mean higher risk for individuals. These are just some tips that are put together for workers:

1. The first thing to think about is your exposure history. If you are a worker in a room, such as the Hart office building, where you had direct contact with the anthrax powder while an envelope containing anthrax was opened, then we know that you are at very high risk for inhalation anthrax.
2. If are you working in a facility where there's been widespread environmental contamination, and those facilities probably include the AMI building in Florida, the Brentwood postal facility, the congressional offices, and the Hamilton postal facility, our environmental tests show there is widespread contamination in all corners of the facilities. It suggests that at some point in time, lots of anthrax spores were airborne, and that those who were working there were at risk for inhaling those spores.
3. Another marker of risk would be working with somebody who's already acquired inhalation anthrax --- sort of makes common sense that if somebody in the facility had the disease, others working in the same environment would also be at risk.
4. Other things that might affect your risk --- and we don't have complete data here, but these are things we are thinking about --- include working in an area where we know that one of the anthrax-containing envelopes was processed using mechanical postal

equipment. I had a chance to visit a postal facility recently and I was impressed that some of the machinery really does put a lot of pressure on the mail as it goes through it. If there was a powder in one of those envelopes then it would make sense that it could escape and cause a problem for the people sharing that breathing zone.

5. I think it's possible - although we don't have the data to suggest this - that people who are aggressively handling one of the envelopes could also be exposed to the powder.
6. One of the other things that we will think about in assessing an individual's risk is whether or not they were able to take their antibiotics for the 60 days. In medicine, we know that people have a very difficult time taking any medication for a long period of time. Our information suggests that lots of people either stop their antibiotics before 60 days, or if they were able to take them through the whole time interval, they missed a lot of doses because it's just very difficult to do. But the people who were not really able to do a good job of completing their antibiotic therapy could be at increased risk because they would have had less antibiotic exposure to kill all of the spores that they might have inhaled.

Fortunately, there are things we also believe that are associated with lower risk. These are common sense based on what we have observed and what you probably know better than we do in terms of the kinds of environments that you have been working in. If someone:

- has not had contact with the powder or an envelope containing that powder,
- had not been working in the area where there was powder, or
- had only been working in an area where there are only focal spots of contamination of spores and only spent a short period of time in area
- is among people in groups that have had no cases of inhalation of anthrax and groups where antibiotics were not started early on but still didn't have cases of inhalation anthrax

we believe that the risk of acquiring inhalation anthrax is very low for all of these people. If these characteristics apply to you, then your chances of getting anthrax are probably extremely low.

Now, let's talk a little bit about the antibiotic treatment. I'm going to try to summarize the experience that we've had so far. As I said at the beginning, I want to keep emphasizing that no cases of anthrax have occurred among the 10,000 workers who were recommended or offered antibiotic treatment. But we have learned that side effects are very common and they can be very difficult. I think it's been extremely challenging for people to take the drugs and to continue to do their work, and get their jobs done when often they're feeling nauseous, sick, or having intestinal problems and so forth. Fortunately, it's unusual for any of the reactions to be medically serious, but we know they can be very troublesome and certainly account for why many people have not been able to complete their whole regimen.

There are some facts about the vaccine that also come into play as we consider the options. The first is what we know about the anthrax vaccine has primarily been learned from experience immunizing healthy military personnel, i.e., soldiers. In this setting,

vaccine is used to prevent infection before any exposure occurs. In this context, the vaccine appears to be very effective, but it's probably not 100% effective. We also know from immunizing hundreds of thousands of soldiers that the vaccine does have side effects, but most of these are short term. Most of them involve problems at the site where the injection was received, but occasionally they can be severe. One of the most specific side effects that people have is the side effect that we refer to as subcutaneous nodules. These are little bumps that occur at the site where the shot is given for the vaccine. Most often you don't notice anything unless you touch the site, but in some people, these nodules can be big, they can be uncomfortable or even painful, and rarely they turn red and the whole arm can swell up. So the prevention of the complications of the vaccine at the injection site is something we haven't learned how to do, and we anticipate that quite a few people will experience this problem.

We have some additional information about side effects. I mentioned the soreness and the redness and the lumps, but many people develop muscle aches or joint aches. Headache has been reported in about one out of five people getting vaccine. Many people feel tired. Occasionally people will experience fever or chills, but that's a rare problem. Nausea occurs in about one person in 20, and some will have stomach upset after the vaccine. As I said the mild problems last a few days. Occasionally the bumps occur at the site; they can be unpleasant, and it's important to anticipate them.

There are a few more severe problems with the vaccine. The first is a larger area of redness where the shot was given. This is not common, but sometimes it gets confused with an infection, and it has led to people having to visit the emergency room or see a doctor to make sure it's a vaccine reaction and not something more serious. The most serious problems the vaccine has produced are allergic reactions. They're very rare. Less than one in 100,000 doses, but it's not a zero risk, and it's very important to remember like any vaccine, there may be occasional severe side effects.

So, it gets back to the idea of trying to balance the benefits of the treatment with the risk of the side effects, and see how those come into play in terms of protecting what is likely to be a small risk of inhalational anthrax. Now, the options that I mentioned at the beginning, just to review them one more time:

- Take antibiotics for 60 days, the prophylaxis regimen that was recommended initially.
- The new option is to take antibiotics for 100 days.
- The second new option is to take the vaccine plus the antibiotics.

These are really complicated decisions, and I wish that the CDC could tell you specifically that you should do this or you should do that. We just don't have the kind of scientific information that we need to be able to do that. I don't think anyone would want to us make profound judgments without the evidence but we also recognize you have a right to know the information about these options, and we have a responsibility to do the job we can to help you make a sensible decision. So things that we're doing to try and help include having videoconferences like this where we can try to put the information into context. We're also working with employers, with the postal service, with experts in the state and local health departments, and many other doctors to try to translate very

complex science into something that you can work with. I don't think this particular presentation is the solution, but I hope it represents a step in the right direction, and I know we'll be continuing to have a dialogue as time goes on. Again I just want to emphasize that we are sorry that you are in this dilemma. We have the challenge of trying to make it as easy for you as possible, and we will continue to try to do that over the next few weeks. Thank you very much.

Lisa Rayam:

I want to thank you, Dr. Gerberding for that valuable information. For the remainder of the program we will answer a number of questions received prior to the broadcast from a lot of different people. Doctor, know this as been a very scary time for a lot of people out there. I think the first question sums it up well. One person asks, "How long am I going to have to worry about getting sick from anthrax exposure?"

Dr. Gerberding:

You know, before we had a chance to really look at all of the information and get new information, we thought that the risk was really limited to the time situation right after the exposure up to perhaps 60 days, and that if people made it past 60 days, there was no risk. That's probably still the case, but in the kinds of environments that we have been talking about here, the exposure levels could have been very high. So, there is some uncertainty. I think we're advising for people to be particularly attentive to monitoring the anthrax for six months after their exposure. ??? We don't expect late cases but just to be on the safe side, being alert to any side effects or any fevers that might suggest early anthrax, and to seek medical attention if that occurs.

Lisa Rayam:

A lot of people, as you know, have a lot of questions about the vaccine. One person asked, "Some doctors say not to take this, and the CDC won't say I should take it. Well, if you guys don't know, how am I supposed to make a decision?"

Dr. Gerberding:

That is a fair question. If we can't tell you what to do, how are you supposed to figure it out? Here it is, a holiday time of year, and people are preoccupied with their work and their families. The last thing you need to do is to be sorting through a lot of very complex medical information trying to make a decision. But as I said before, we don't have the information we need to make the best recommendations for each individual.

But what we can say is that if you see yourself in a group where there is likely to have been a high degree of exposure, and you haven't been able to take your 60 days of antibiotics, you might be among the people who are at the risk for late inhalation disease. Vaccine is a good option for you to consider and to discuss with your doctor.

For the people who are in a lower risk group, or people whose exposure level was probably very low and particularly for those who were able to take all 60 days of antibiotics, you probably have very little to worry about, and getting a vaccine would not

be a high priority for you. Likewise getting extra days of antibiotics is probably not that important to your health.

Lisa Rayam:

So, the vaccine has been proposed as an option. One person asked, "I'm interested, but I want to think about it and talk about it with my family and doctor. How much time I do have to make up my mind before the door shuts on this?"

Dr. Gerberding:

First of all, let me at least try to offer reassurance. This is not an emergency. We're trying to extra careful to make sure we don't see any late cases. But we actually don't have any information to say that there's some imminent problem here. So, it's not an emergency.

But on the other hand, if people do need the extra protection, it just makes sense to try to get it started fairly quickly. So, we're working with employers and health departments up and down the east coast to try to get this organized and get these options available to people over the next few days. I think the opportunity to start will occur in an organized fashion over the next two weeks. There should be nobody who couldn't start soon. But if somebody waits until the last minute and they'd like to start later, we will individualize that option for them and be as permissive as we can.

Lisa Rayam:

So, they can say no initially and then change their mind?

Dr. Gerberding:

They can say no and change their mind, but I think we'd like it to happen as soon as possible, so there's this balance between the pressure of not having enough information and being bombarded with this all of a sudden and the importance of not waiting too long. But as I said, it's not an emergency, so there's time to take a deep breath and sort of let it all sink in and ask questions. We're prepared to go to various work sites with our doctors. We have committed that we will make our doctors available to counsel workers and we have phone services so people can call in and get specific information and advice. We are also working to get information in the hands of the doctors who will be helping individuals take care of themselves and make the decisions. So, it's happening on a fast track, but we're getting there.

Lisa Rayam:

People out there are understandably anxious as you can imagine.

Dr. Gerberding:

I think it's difficult for all of us.

Lisa Rayam:

You touched on the side effects earlier. How does the person know that the side effects are from the vaccine and not another illness?

Dr. Gerberding:

We are asking people to pay close attention to their personal health and when in doubt get medical advice. We know the symptoms of inhalational anthrax are almost always high fevers and sweats --- very profound sweats --- as well as some chest pain and some significant fatigue. Clearly, anybody who has any of those symptoms should go to the emergency room, let them know you're in a group that was requested to take 60 days of antibiotics after anthrax exposure, and make sure that the clinicians taking care of you are aware of that.

For the side effects there's a little bit of overlap. For example, the vaccine can cause a mild fever. The antibiotics can cause a sense of fatigue or stomach upset, but generally, we are able to tell them apart. The best thing I can say to make it simple is that when in doubt, ask. Get help. Run it past a clinician.

Lisa Rayam:

Are the chances high that someone would get sick after receiving the vaccine?

Dr. Gerberding:

The vaccine, as I said, is generally very safe. The main problem are these little nodules that people can get under the skin, which can sometimes be dramatic but are usually not very noticeable. Then there are allergic reactions --- those allergic reactions are often conspicuous in the sense that the skin develops a rash, occasionally people begin to develop problems breathing or swelling. That represents an emergency that would require immediate medical attention. But beyond that, it's just like any other vaccine. It's not going to be fun to get a shot; you do it because you think that the extra protection will help keep you healthier than you would be without it.

Lisa Rayam:

Someone out there wants to know, "Can I take the vaccine without the antibiotics?"

Dr. Gerberding:

Unfortunately, it is not possible under this program to take vaccine alone, nor would we really recommend it. The reason is that it just doesn't make sense. When you get a vaccine, you get a little bit of immunity after the first shot, but not enough to change your risk. After the second shot, your body produces a little more antibody and you might have a little more protection. But it really takes all three shots to get your protection up to the level where you're actually safe. If we want people to be safe while that's happening, they need to take the antibiotics.

Because this whole program is functioning under something that we call an investigational protocol, there are requirements that the FDA has created in terms of how we do use the vaccine and the extra days of antibiotics. That protocol is very strict and it insures the best safety for the people involved, and it does require us to offer the antibiotics plus the vaccine in the vaccine option.

Lisa Rayam:

These next two questions, Dr. Gerberding, are specific. One person asks, "Will the vaccine prevent me from getting sick if I get exposed to a letter with anthrax?"

Dr. Gerberding:

That's a really important question because I think we all recognize this is a bioterrorism attack, and until we catch the people who are using the mail system to commit crimes, we're not ever going to be completely safe. Now, if exposures occur in the future, people who have taken the vaccine are not guaranteed to be protected. As I said earlier, in the military situation, when the vaccine was used to prevent infection before exposure occurred, actually six doses of the vaccine were given over a period of 18 months. Each time you get a dose, the antibodies get higher and higher. Those people have very high levels of protection, and it lasts for a very long period of time. They would be protected from a future exposure.

But what we're talking about here is only three doses of vaccine. It's designed just to give an extra margin of safety in the post-exposure period while we wait for the body's immune system to kill off any few spores that might be left after the antibiotics. So, we can't guarantee that the protection will be there in the future. It's only to help with the current problem.

Lisa Rayam:

So, this next question is, "Will this vaccine prevent from me from getting sick if I return to work in a building that still has spores?"

Dr. Gerberding:

I think it's the same answer. CDC is working with the employers of all of the buildings to ensure that measures the EPA recommends are followed --- to insure the safety of buildings before people re-enter them --- and that we're not asking workers to go back to unsafe buildings. That's the important message there. But as I said before, the vaccine or the extra days of antibiotics here are not designed to prevent future exposures. They're just designed to help you get through the first episode and make sure that any few spores remaining are gone before you don't have any protection on board.

Lisa Rayam:

One person asks, "How can I find out what amount of anthrax I was exposed to?" Is that possible to determine on an individual basis?

Dr. Gerberding:

here is no test that will tell us five spores versus 5,000 spores. So we have to use the clues that we have from examining the environments where people were working. We know, for example, in the Brentwood postal facility where we initially found spores on the sorters that process the letters and the cancellers that process the letters, on looking further and doing much more aggressive sampling, we were able to find spores in all corners of that building. So, for someone working there, if you just passed in and out of the facility, you may not have breathed in very many spores because you weren't there long enough to do that. But for people who worked there for their entire tour or had

several tours before the building was closed, the cumulative number of spores may be high. We mentioned that for those kinds of environments, where there's widespread contamination and a person worked there for a long period of time, we're concerned that they at least get the information that there may be an additional option for protection.

Lisa Rayam:

When it comes to the vaccine, people are hanging on the word "experimental." One person asks, "I've heard this is an experimental treatment. Is this good for us?"

Dr. Gerberding:

This is tricky and the honest answer is when are you dealing with something that says, "yes, we don't have the science and it works" or "no, it's not and there's some sense of an experiment." ?? But the particular program that we're talking about here is an investigational protocol to get a drug available or get a vaccine available to people that could not get it under the existing regulations.

Whether it's an antibiotic or a vaccine, the Food and Drug Administration has rules about how those products can be used. None of the antibiotics or vaccines is currently approved for use to prevent infection in the kinds of options that we're talking about now. So, the FDA has given us permission to offer them in an investigational status. It's a common way of getting new products or products that are not used very often available to people. In my history as a doctor taking care of AIDS patients, we often made drugs available to AIDS patients under this process, called an investigational new drug protocol. But it does require people to know that we don't have complete information about benefit and safety and so on. Informed consent is necessary. People are asked to participate in some monitoring so we can learn about the safety and experience that they have had and we can recognize early if there are problems that should let us know this is not a good idea -- or gee, this is something that helped and is something that we should make widely available in the future.

Lisa Rayam:

As you know, there's a lot of information out there about anthrax and the vaccine, some of it right, some of it wrong. This person remarks, "I read in the paper that the company that makes this vaccine has safety problems. That doesn't make me feel good about this." What do you say about that?

Dr. Gerberding:

Well, what I would say right now is that the FDA is vigilant in making sure what antibiotics or vaccines we have, they have been evaluated by the FDA, and they meet their safety criteria, they meet their potency criteria and they pass a number of their tests to insure that they are safe. The vaccine that we are offering to people now meets all of the FDA standards for safety and is fully approved by the FDA for use under this investigational protocol. So, I feel confident that the product is as safe as it can be from the standpoint of its chemical composition. We just need to know it's safe when it's actually delivered to people.

Lisa Rayam:

The next question is along the same lines of right or wrong information.

"I'm a Vietnam veteran. I have heard bad stories about the effects of this vaccine on desert storm veterans. What's the truth in all of this?"

Dr. Gerberding:

This vaccine has been used in soldiers, as I mentioned. Many of them were soldiers involved in the Gulf war. There are many problems that veterans from the Gulf war have experienced and some people refer to that as the Gulf war syndrome. Right now, the vaccine is one of the things that some people have thought might be contributory. But on careful evaluations by a number of non-governmental or non-military scientists, we really have not able to find a link between the anthrax vaccine and the Gulf war syndrome.

I don't think that's one of the complications we would see from immunization, but as I said, we are having an open mind and we fully intend to support the long-term evaluation of whatever we do.

Lisa Rayam:

"When are CDC employees are going to be in Washington and New Jersey to talk to the people who have been infected there?"

Dr. Gerberding:

CDC is pretty much working around the clock with health officials, postal management, and other organizations up and down the east coast to figure out not so much what's the first minute that the first dose will be available, but what's the best way to get this product available. "Best" means not only what's logistically feasible, but also the best context so that people are the most prepared to decide if they want to roll up their sleeves and get a shot or take extra days of antibiotics.

As I said, this is not an emergency so; we're taking a little more time to work out the logistics. We have been asked by the postal service and the labor unions in that organization to work with them and make sure their employees get all of the information they need and not be forced into making a decision early. Likewise, we're working with the workers in Florida and elsewhere to try to insure that we can provide a similar framework for them. As far as CDC is concerned, we have the vaccine. We have the antibiotics. We have the forms. We have the permissions. We have the people. We actually are working with an organization that has experience immunizing the soldiers. So, the people who are involved in doing this in the local areas are experts. We're ready, but what we aren't ready quite yet for is the information piece. This is one step.

Lisa Rayam:

Yes. I understand that there are a lot of questions surrounding the antibiotics that are being given. One person asks, "What is the probability that I will get sick if I don't take any more antibiotics or the vaccine?" There's been confusion there as well.

Dr. Gerberding:

Yes. Again, it's another way of saying, "What is my risk?" We talked about how the exposure or the number of spores inhaled is one component of risk. We talked about whether you were able to take all 60 days of the original treatment or not as another factor that affects risk. But the truth is we cannot give you a specific piece of information about your risk. We have to give you everything that we do have, to tell you what we know, help you weave your way through the uncertainties, and work with you and your doctors to help get the best decision for you.

Lisa Rayam:

One person asks, "If I stopped taking the antibiotics some time ago and didn't get sick, does that mean that I'm unlikely to get anthrax in the future?"

Dr. Gerberding:

If you were not able to take all of the your antibiotics and you were not in the high exposure group, then you're probably not going to get anthrax. You know, even though we're being very cautious here and we're worried about late cases or a few spores remaining that might cause disease later, the truth is that the people who got sick got sick very early after exposure. Since that time, we have had no additional cases. So, we're not talking about something that we expect to be a high risk for anyone.

Lisa Rayam:

If a person has been exposed, is there any one person they can go to help them make decisions about where they should go, what they should do, what they should take and what they shouldn't take?

Dr. Gerberding:

We're individualizing this in a variety of ways. My view is the more the better. So, the more resources we can put out there, the more options people have about getting information.

I think one of the first levels of information is to go to the people you trust. Part of the reason why we want to work with the postal union leaders is because we know they are trusted resources for those people in the postal facilities. Likewise, there are trusted opinion leaders in the other work environments that we're addressing. So, we want to be sure that we're supporting the information flow from those who are most trusted.

In terms of the doctors, just this morning, we provided a videoconference for clinicians who might be asked by patients to help with these decisions, and we will continue to push information out to the doctors. So, I would like to think that doctors or health care providers would also be an important resource for individual postal and other workers. If people have ideas about other ways that we can support their decision or make sure that the people they turn to are informed, we really want to have that information and we will respond to it.

Lisa Rayam:

They are a lot of people out there who are still afraid. One person simply asks, "What do I tell my family to look for? I may not notice anything wrong if I have been exposed?"

Dr. Gerberding:

I think the signs of anthrax in the people that we have been able to detect and diagnose have been conspicuous. Unfortunately, not all of the people were able to get medical care in time to get the life saving antibiotics that they needed to cure their infection. That's something that everyone is very sad about. It's been a very, very unfortunate situation, and at CDC we have great remorse and regret about people who got anthrax and died.

But we do recognize that for other people when you have that high fever or the sweats or the chills, and you work in one of these facilities, getting attention early really does seem to make a difference. If you get attention early on, the antibiotics will save your life.

Lisa Rayam:

Finally today, "How do I know or how do I determine my personal risk?"

Dr. Gerberding:

That's the \$64 million question. I cannot answer that question generically. But I can say that sitting down with someone, going through your exposure, going through your work situation, going through your antibiotic treatment history, and then seeking the advice of people who know other aspects of your medical situation --- whether you are a healthy person or a person who has other medical problems --- all of that needs to be factored together.

My personal view is that the best person to help you with that is your doctor. We are working with the doctors to make sure that they're ready to give you that assistance. And we will do our best.

Lisa Rayam:

All right. Thank you, Dr. Gerberding for sharing this important information. It is a very, very scary time for a lot of people out there. I'm sure that you have answered a lot of questions that people had out there. I would also like to thank you, our audience, for joining us for this program, "Treatment Options for Postal and Other Workers Exposed to Anthrax," which is part of CDC Responds, a series of programs that target important clinical and public health issues.

As we mentioned earlier in the program, if you have additional questions following this broadcast, please fax them to 800-553-6323. Your questions will be answered by CDC over the coming weeks, and will be posted on CDC's web site at www.bt.cdc.gov.

If you missed any of this program or would like to see any of the past programs in the CDC Responds series, you can view them at any time, day or night, by accessing the web archives on the Internet at www.sph.unc.edu/about/webcast.

Videotapes are also available after each program's broadcast. To order a tape call 1-877-252-1200, or 1-301-645-7773 from the 9 a.m. to 5 p.m. Eastern Time or write to the e-mail address, info@phs.org.

We would appreciate your feedback on this program, so please let us know if you feel we have achieved our goal to supply with you the latest information available, and if we gave you a better understanding of the treatment options available for postal and other workers exposed to anthrax. Now, simply visit www.trainingfinder.org. Use the keyword search to find the title of this or any other program in the CDC Responds series that you want to review. Click on "submit a review" below the title and just follow the instructions. Your review will help us better meet your needs.

Once again, we thank you, our viewers and sponsors, for making today's show possible. On behalf of everyone at CDC and the Public Health Training Network, I'm Lisa Rayam wishing you a good day from Atlanta.